

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 27,34,37,47,48,64,65 and 68 have been amended.

Claims 1-26 (cancelled without prejudice)

Claim 27 (Currently Amended) A container suitable for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel having a flexure region ~~projecting away from said plane~~ positioned towards a first longitudinal end of said flex panel and a flexure initiator region positioned towards an opposing end of said flex panel, said initiator region projecting away from said plane to a lesser extent than said flexure region, said regions merging together so that said initiator region can flex inwardly relative to said plane in response to pressure changes and cause said flexure region to progressively flex in response to increasing pressure change in the container.

Claim 28 (previously amended): A container as claimed in claim 27 which has a longitudinal axis and said flexure region projects outwardly in a transverse direction relative to said longitudinal axis.


Claim 29 (previously amended): A container as claimed in claim 27 in which said flexing of said flexure region results in an outward curvature of said flexure region lessening.

Claim 30 (previously amended): A container as claimed in claim 27 wherein said initiator region merges smoothly with said flexure region and said regions vary in outwardly projecting extent along an axis of said container.

Claim 31 (previously amended): A container as claimed in claim 27 wherein said initiator region merges smoothly with said flexure region and progressively varies in outwardly projecting extent from said initiator region to said flexure region.

Claim 32 (previously amended): A container as claimed in claim 27 wherein said flexure region varies in transversely radiating extent along an axis of said container.

Claim 33 (previously amended): A container as claimed in claim 27 wherein said initiator region varies in transversely radiating extent along an axis of said container.

 Claim 34 (Currently Amended) A container as claimed in claim [27] 28 in which a projection of said flexure region extends inwardly relative to said longitudinal axis of said container.

Claim 35 (previously amended): A container as claimed in claim 29 in which the initiator region inverts so as to reverse in curvature in response to vacuum pressure change within said container.

Claim 36 (previously amended): A container as claimed in claim 29 in which said flexure region inverts so as to reverse in curvature in response to vacuum pressure change within said container.

Claim 37 (Currently Amended) A container having a longitudinal axis, said container adapted to contain liquid at a temperature elevated above room temperature, said container including a wall with at least one invertible flexible panel, said flexible panel being adapted to flex upon a changing of internal pressure during a changing of temperature of said liquid, said flexible panel

having at least one projecting portion, projecting in a direction from a plane disposed relative to said longitudinal axis, said projecting portion positioned towards a first longitudinal end of said flexible panel, said flexible panel further including at least one initiator portion displaced relative to said projecting portion towards an opposing longitudinal end and projecting to a lesser extent in said direction, whereby in use, said initiator portion is adapted to reverse relative to the direction of its projection thereby causing said projecting portion to reverse relative to the direction of its projection and in the same direction parallel with the reversal of the initiator portion.

Claim 38 (previously added): A container as claimed in claim 37, wherein said flexible panel is adapted to flex inwardly upon a lowering of internal pressure during a cooling of said liquid.

Claim 39 (previously added): A container as claimed in claim 37, wherein the projection is in an outward direction relative to said plane.

Claim 40 (previously added): A container as claimed in claim 37, wherein the flexible panel is substantially arcuate with the curvature of the initiator portion being less than that of the projecting portion.

Claim 41 (previously amended): A container as claimed in claim 37 wherein the initiator portion includes regions of minimal projection relative to said projecting portion.

Claim 42 (previously added): A container as claimed in claim 37, wherein said flexible panel is adapted to flex outwardly in use upon a raising of internal pressure during a heating of said liquid.

Claim 43 (previously added): A container as claimed in claim 42, wherein the projection is in an inward direction relative to said plane.

Claim 44 (previously added): A container as claimed in claim 43, wherein the flexible panel is substantially arcuate and the curvature of the initiator portion is less than that of the remainder of the flexible panel.

Claim 45 (previously added): A thin-walled container having a longitudinal axis, said container formed from a plastics material and adapted to contain liquid at a temperature elevated above room temperature, said container including: an upper portion which includes a sealable closure receiving portion; a lower portion including a base closing the bottom of the container; and a wall extending between said upper and lower portions, said wall being generally tubular in shape and including at least one elongated, vertically oriented vacuum panel, said vacuum panel being adapted to flex inwardly upon a lowering of internal pressure during cooling of said liquid, said vacuum panel including a connecting portion and an elongated outwardly projecting portion, said connecting portion connecting said outwardly projecting portion to said wall, said connecting portion being adapted to flex inwardly upon lowering of internal pressure during cooling of said liquid, said outwardly projecting portion including an initiator portion, said initiator portion including a substantially flattened portion and a raised portion, said flattened portion connecting said connecting portion to said raised portion, said raised portion projecting outwardly to a lesser extent than the remainder of said outwardly projecting portion, whereby in use, increased vacuum pressure causes said flattened portion to curve inwardly, thereby causing said raised portion to reverse in curvature, thereby causing said outwardly projecting portion to reverse in curvature.

2
v
D

Claim 46 (previously added): A thin-walled container as claimed in claim 45 wherein said vacuum panel including a connecting portion, said connecting portion connecting said outwardly projecting portion to said wall said connecting portion being adapted to flex inwardly upon lowering of internal pressure during cooling of said liquid and said flattened portion connecting said connecting portion to said raised portion.

Claim 47 (Currently Amended) A container having at least one controlled deflection flex panel said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel having an initiator region of a predetermined extent of ~~outward~~ projection away from said plane, and a first and second flexure region of a greater extent of ~~outward~~ projection extending longitudinally away from said initiator region, said first flexure region extending towards a first end of said flex panel, and said second flexure region extending towards an opposing end of said flex panel, whereby flex panel deflection occurs in a controlled and progressive manner in response to changing container pressure.

Claim 48 (Currently Amended) A container adapted to contain liquid at a temperature elevated above room temperature, said container including a wall with a controlled deflection flex panel having a portion with an initiator region having a predetermined extent of projection and a longitudinally displaced flexure region having a progressively increasing extent of projection longitudinally extending away from said initiator region, said wall being outwardly bowed between said regions, whereby flex panel deflection occurs progressively between said regions in a controlled manner in response to changing container pressure and in the same direction parallel with an initial deflection of the initiator region.

Claim 49 (previously added): A container including a controlled deflection flex panel having an initiator region including a predetermined extent of inward

projection and flexure region having an outward projection, the flexure region extending longitudinally away from said initiator region, whereby flex panel deflection occurs in a controlled manner in response to changing container pressure.

Claim 50 (previously added): A container adapted to contain liquid at a temperature elevated above room temperature, said container having a wall including a controlled deflection flex panel having a portion with an initiator region having a predetermined extent of inward projection and a flexure region having a progressively increasing extent of inward projection in the longitudinal direction extending away from said initiator region, said wall being inwardly bowed between said regions, whereby flex panel deflection occurs progressively between said regions in a controlled manner in response to changing container pressure.

17D
v
Claim 51 (previously added): A container as claimed in claim 47, including a pair of substantially inflexible regions between which said initiator region and said flexure region extend.

Claim 52 (previously added): A container having a controlled deflection flex panel as claimed in claim 51, wherein the initiator region and flexure region are substantially arcuate.

Claim 53 (previously added): A container having a controlled deflection flex panel as claimed in claim 51, wherein the initiator region is substantially arcuate.

Claim 54 (previously added): A container having a controlled deflection flex panel as claimed in claim 51, wherein the flexure region is substantially arcuate.

Claim 55 (previously added): A container having a controlled deflection flex panel as claimed in claim 52, wherein the initiator region and flexure region includes two panel portions meeting at an apex. K
b

Claim 56 (previously added): A container having a controlled deflection flex panel as claimed in claim 52, wherein the initiator region includes two panel portions meeting at an apex.

Claim 57 (previously added): A container having a controlled deflection flex panel as claimed in claim 52, wherein the flexure region includes two panel portions meeting at an apex.

b
H Claim 58 (previously added): A container having a controlled deflection flex panel as claimed in claim 53, wherein the initiator region and flexure region includes two panel portions meeting at an apex.

Claim 59 (previously added): A container having a controlled deflection flex panel as claimed in claim 53, wherein the initiator region includes two panel portions meeting at an apex.

Claim 60 (previously added): A container having a controlled deflection flex panel as claimed in claim 53, wherein the flexure region includes two panel portions meeting at an apex.

Claim 61 (previously added): A container having a controlled deflection flex panel as claimed in claim 54, wherein the initiator region and flexure region includes two panel portions meeting at an apex.

Claim 62 (previously added): A container having a controlled deflection flex panel as claimed in claim 54, wherein the initiator region includes two panel portions meeting at an apex.

Claim 63 (previously added): A container having a controlled deflection flex panel as claimed in claim 54, wherein the flexure region includes two panel portions meeting at an apex.

↑
N

Claim 64 (Currently Amended) A container having a longitudinal axis, said container including a wall with at least one invertible flexible panel, said flexible panel being adapted to flex upon a change of internal pressure, said flexible panel having at least one projecting portion, said projecting portion projecting in a transverse direction from a plane, said plane disposed relative to said longitudinal axis, said flexible panel also including at least one initiator portion longitudinally displaced from said projecting portion and projecting to a lesser extent in said transverse direction, said flexible panel also including a connecting portion, said connecting portion connecting said initiator portion to said wall, whereby in use, deflection of the connecting portion causes said initiator portion to reverse in curvature thereby causing the projecting portion to reverse in curvature and in the same single direction parallel with the reversal in curvature of the initiator portion.

Claim 65 (Currently Amended) A biaxially oriented plastic container having a longitudinal axis, comprising: a neck defining a mouth, a shoulder portion joined with said neck portion and extending downward therefrom, a bottom portion forming a base of the container; a side wall extending between and joining said shoulder portion with said bottom portion, said side wall having at least one ~~vacuum~~ controlled deflection flex panel for accommodating pressure change induced in the container; said flex panel having a first flexure region positioned toward a first longitudinal end of said flex panel, a second flexure

region positioned toward the opposing end of said flex panel, and a flexure initiator region positioned between said first and second flexure regions, said flex-panel first and second having a flexure regions having an of outward curvature in cross-section, said flexure initiator region having ~~initiator region~~ and a lesser outward curvature in cross-section, said regions merging together so that said initiator region can flex inwardly in response to pressure changes and cause said flexure region to progressively flex in response to increasing pressure change in the container.

Claim 66 (previously added): A container according to claim 65 having more than one vacuum panel.

Claim 67 (previously added): A container according to claim 65 having a plurality of said vacuum panels spaced apart and separated by land areas or columns.

Claim 68 (Currently Amended) A hot-fill blow-molded ~~molded~~ molded plastic container having at least one controlled deflection flex panel for accommodating vacuum induced in the container, said flex panel having longitudinal and transverse extents, said flex panel having a flexure region with a longitudinally variable transverse curvature and a continuous flexure initiator region of a different transverse curvature longitudinally displaced from the flexure region, said curvatures smoothly merging together longitudinally so that motion of said flexure initiator region in response to vacuum is transferred to said flexure region for longitudinally progressively flexing said flexure region in the same single direction parallel with the flexing of the initiator region in response to increasing vacuum in the container.

Claim 69 (previously added): A container according to claim 51 wherein a flattened region extends between said inflexible regions to provide a middle portion of said initiator region.

FS 8A
Wond

*Nov 12
81*

Claim 70 (previously added): A container as claimed in claim 37 wherein the initiator portion includes regions of opposite projection relative to said projecting portion.

Claim 71 (New) A container suitable for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel including a first portion and a second portion spaced apart longitudinally in separate regions of the flex panel, said first portion providing a surface displaced with respect to the said plane along the said longitudinal axis, and said second portion providing another surface displaced to a lesser extent with respect to the said plane along the said longitudinal axis.

6
11/12

Claim 72 (New) A container suitable for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel including a first portion and a second portion spaced apart longitudinally on a longitudinal axis of said container, said first portion comprising a flexure region projecting away from said plane along a single axis and said second portion comprising an initiator region projecting away from said plane to a lesser extent along the same said single axis.

Claim 73 (New) A container suitable for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel including a first portion and a second portion spaced apart longitudinally along a longitudinal

axis of the container, said first portion comprising an outwardly convex flexure region projecting away from said plane along a single axis and said second portion comprising an outwardly convex initiator region projecting away from said plane to a lesser extent along the same said single axis, said regions merging together so that said initiator portion can flex inwardly relative to said plane in response to pressure changes and cause the flexure region to progressively flex in the same single direction parallel with the flexing of the initiator portion in reducing its convexity and in response to increasing pressure change in the container.

Claim 74 (New): A container as claimed in claim 71, wherein the flex panel further comprises an initiator disposed on the second portion, the initiator having an initiator end, wherein the initiator end is substantially flat and wherein upon an increase in vacuum pressure within the container, the initiator end initiates an inversion from the second portion to the first portion.

Claim 75 (New): A container as claimed in claim 74, wherein the initiator end resides in a first plane, the first plane being normal to the longitudinal axis of the container, wherein the inversion from the second portion to the first portion is an inversion from the first plane through successively adjacent planes disposed parallel to the first plane.

Claim 76 (New): A container as claimed in claim 74, wherein the inversion progressively inverts the flex panel from the second portion to the first portion.

Claim 77 (New): A container for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel having a flexure region positioned towards a first longitudinal end of said flex panel and a flexure

initiator region positioned towards an opposing end of said flex panel, said flexure region projecting away from said plane, and said flexure initiator region projecting away from said plane to a lesser extent than said flexure region, said regions merging together so that said initiator region can flex inwardly relative to said plane in response to pressure changes and cause said flexure region to progressively flex in response to increasing pressure change in the container and in the same direction parallel with the direction of flexing of the initiator region.

Claim 78 (New): A container as claimed in claim 65, said flex panel portion including a pair of opposing ends and a pair of opposing sides, said flex panel portion including a pair of opposing columns, said columns being located at said opposing sides.

Claim 79 (New): A container as claimed in claim 77, including two or more flex panel portions, said flex panel portions being located at opposing sides of said columns.

CFNS

Claim 80 (New): A container for containing liquid and having at least one controlled deflection flex panel for accommodating pressure change induced in the container, said flex panel having longitudinal and transverse extents defining a plane of said flex panel, said flex panel having a first flexure region positioned towards a first longitudinal end of said flex panel, a second flexure region positioned towards the opposing longitudinal end of said flex panel, and a flexure initiator region positioned between said first and second flexure regions, said first and second flexure regions projecting away from said plane, and said flexure initiator region projecting away from said plane to a lesser extent than said first and second flexure regions, said regions merging together so that said initiator region can flex inwardly relative to said plane in response to pressure changes and cause said flexure region to progressively flex in

1/18/6

response to increasing pressure change in the container and in the same direction parallel with the direction of flexing of the initiator region.
